

Rediscovery of *Dipcadi maharashtrensis* Deb et Dasgupta (Liliaceae), an endemic and threatened species from Maharashtra, India

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Abstract

Dipcadi maharashtrensis Deb et Dasgupta, an endemic and threatened species has been collected after 43 years since its type collection. A detailed description and illustration of the species is provided.

INTRODUCTION

The genus *Dipcadi* Medik. belongs to the tribe Scilleae, comprising 30 species mostly distributed in the Mediterranean parts of the world (Mabberley, 1997). Out of which 9 species and two varieties occur in India (Karthikeyan *et al.*, 1989). About 7 species and one variety are endemic to India (Ahmedullah & Nayar, 1987; Nayar, 1996). The genus can be distinguished by its perianth segments united more than one-third from the base and compressed seeds.

Deb and Dasgupta (1976) while revising the tribe Scilleae, described *Dipcadi maharashtrensis* based on a specimen (*Rukmani Bai 433*, BLAT) collected from Pachgani plateau annotated as *Dipcadi montanum* (Dalz.) Baker. No specimen of this species since the type collection was available in any of the herbaria. Consequently, the species is believed to be threatened and listed in the endangered category (Nayar & Sastry, 1987; Singh & Karthikeyan, 2000; Tetali *et al.*, 2000). The senior author, during a field trip to Khas plateau in the Satara district of Maharashtra located *D. maharashtrensis*. Subsequent explorations in the area revealed this species as quite common on Khas plateau. Since the protologue is based on a single herbarium specimen (flowering), a more detailed description based on more fresh specimens (flowering & fruiting) are provided here.

Dipcadi maharashtrensis Deb & Dasgupta, J. Bombay. Nat. Hist. Soc. 72: 822. (1975) 1976 & *Ibid.*, 75: 62. 1978 & Fasc. Fl. India 7:4. 1981; Nayar & Sastry, Red Data Book Ind. Pl. 1:

P. Tetali *et al.*

176. 1987; Karthik. *et al.*, Fl. Ind. Enum. Monocot. 93. 1989; Lakshmi. in Sharma *et al.*, Fl. Maharashtra Monocot. 130. 1996 (Fig. 1).

Perennial herbs, up to 40 cm high, bulbous, scapigerous. Bulbs 1.2-2.5 x 1.2-2.5 cm, globose, rooting profusely from base. Leaves radical, few (2-6), shorter than scape, 13.5-35 x 0.2-0.8 cm, linear, broadest at middle, plicate, acute at apex, entire along margins, coriaceous, glabrous, 6-14-veined, central veins closely arranged. Scapes 15-38 cm long, terete, glabrous. Racemes 3.5-13 cm long, loose, bearing 3-15 flowers; pedicel occasionally bear more than one flower; bracts persistent, longer than pedicels, 1-2 x 0.2 - 0.4 cm, subulate-lanceolate, long acuminate, coriaceous, 3-5 - nerved, appressed pilose, clasping the pedicels. Pedicels 2-5 mm long, stout. Flowers white to off-white, young with greenish tinge, turns brownish with maturity, scented, perianth tips hooded, 11-17 mm long. Whorl of perianth 1.0 - 1.3 x 0.2 - 0.4 cm, campanulate, connate up to one third from base; lobes 1.5 - 1.7 x 0.2 - 0.3 cm, obovate-lanceolate, obtuse at apex, nerves convergent. Stamens and filaments adherent to inner perianth tube, remaining free for about 1 mm above; anthers off-white tinged with green, turns brownish during and after dehiscence, oblong, 2.5 - 3 x 0.6 - 1 mm, dorsifixed, introrse, 2-celled; filaments flat, up to 5 mm long; pollen white, spherical. Gynoecium 1.0 - 1.3 cm long, green; ovary tricarpellate, stipitate, broadly oblong, 3.5-5 x 2.0-3 mm, trilocular, with numerous ovules on axile placenta; style stout, white, 0.4 - 0.6 cm long. Capsules obovoid, trilocular, trilobed, 8-11 x 13-15 mm, with persistent style, stalk 1.0 - 1.2 cm long. Seeds compressed, 5-9 in each locule, superposed, 4-5 mm across, obovoid, orbicular, oblong, black, glossy.

Flowering and fruiting : August – December.

Distribution: Endemic to Maharashtra (Satara district), India.

Specimens examined: India, Maharashtra, Satara Dist.: Panchgani, 5 Sep. 1955, Rukmani Bai 433 (BLAT); Khas plateau, 11 Nov. 1998, P. Tetali 125, 126 (NGCPR, BSI).

Ecology: The species grow on high altitude plateaus of Western Ghats, between 1000-1200 m above sea level. The natural habitats are mostly open lateritic plateaus full of crevices or puddles where soil depth is very little. Both the reported localities receive heavy rainfall (6000-9000 mm) of the SW monsoon. The leaves and inflorescences of the species dry off after the dehiscence of the fruit. New sprouts from the bulbs appear in the month of June.

The species is found growing in association with a number of grasses such as *Dimeria* spp., *Dichanthium* spp., *Eragrostis* spp., *Glyphochloa* spp., *Isachne* spp., and other herbs, mostly monsoon ephemerals such as *Utricularia* spp., *Eriocaulon* spp., *Aponogeton satarensis*, *Impatiens* spp., *Linum mysurense*, and *Smithia* spp.

Khas plateau is one of the important biodiversity hot spots of Maharashtra state. The plateau is one of the most diverse and unique regions and deserves a special status of protection. It harbours a number of endemic plant species. About 40 endemic species are listed by the authors during various explorations from this region of about 20 sq. km area.

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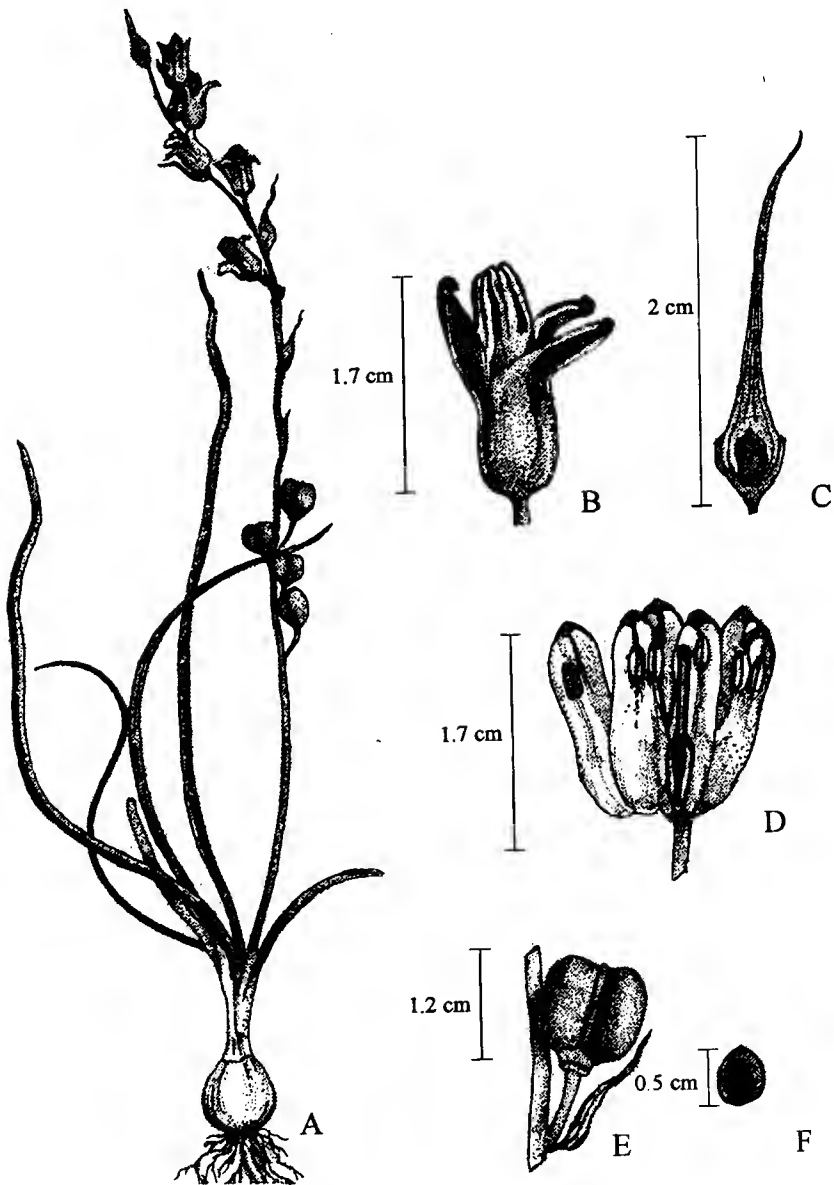


Fig. 1. *Dipcadi maharashtrensis* Deb et Dasgupta: A. Habit; B. Single flower; C. Bract; D. Dissected flower; E. Fruit; F. Seed.

P. Tetali *et al.*

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